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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,626	11/28/2001	Edward T. Sullivan	064731.0292	7607

7590 10/31/2006

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EXAMINER

HARPER, KEVIN C

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,626

Applicant(s)

SULLIVAN ET AL.

Examiner

Kevin C. Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-20 is/are allowed.
- 6) ☒ Claim(s) 21, 22, 24 and 25 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments filed August 24, 2006 concerning traffic shapers of Parruck have been fully considered but they are not persuasive. Applicant may have indicated that the traffic shapers of Parruck are not schedulers. Examiner notes that the shapers of Parruck limit the amount of data transmitted by a virtual circuit (Parruck, paras. 12-13 and 17) as similarly defined by the specification of the instant application (pg. 15, lines 11-19).
2. Applicant's remaining arguments filed August 24, 2006 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Parruck in view of Park and Kim.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 21-22 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parruck et al. (US 2001/0001608) in view of Park (2002/0036981).

3. Regarding claims 21, Parruck discloses a method for transmitting traffic in a virtual tunnel of a transmission line (para. 7, last six lines). The method comprises allocating slots to a selected transmission line interface (fig. 2, item 92(0)-92(n) or fig. 4, item 200(0)-200(n)), each interface having a corresponding scheduler (item 95(0)-95(n) or 205(0)-205(o); para. 16), and using the selected scheduler to transmit specified traffic allocated to the interface based on the assigned slots (para. 12, last three lines; para. 13, lines 3-7; para. 17).
4. However, Parruck does not disclose receiving a request to transmit traffic in a virtual tunnel for hierarchically assigned slots. Kim discloses receiving a request to transmit traffic in a

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virtual tunnel having a bandwidth (col. 1, lines 6-9; col. 1, line 59 through col. 2, line 9; col. 2, lines 23-56). The slots are hierarchically assigned (fig. 5; col. 3, lines 17-23; col. 5, lines 22-41). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a request for assigning hierarchical slots to a virtual tunnel in the invention of Parruck in order to properly allocate bandwidth to the request (Parruck, col. 5, lines 56-60; col. 3, lines 4-11 and 14-16).

5. Regarding claim 22, in Parruck traffic is queued for each scheduler (fig. 2, item 92 or fig. 4, item 195).

6. Regarding claims 24-25, the schedulers transmit dynamic traffic and dedicated traffic in the slots (para. 8, last three lines; para. 7, last six lines) including ABR and UBR.

Allowable Subject Matter

7. Claims 1-20 are allowed

8. Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:00 AM to 7:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To, can be reached at 571-272-7629. The centralized fax number for the Patent

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Office is 571-273-8300. For non-official communications, the examiner's personal fax number is 571-273-3166 and the examiner's e-mail address is kevin.harper@uspto.gov. Previous art units 2661-2668 have merged to form a new art unit 2616. A similar restructuring has taken place for all other art units in TC 2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications associated with a customer number is available through Private PAIR only. For more information about the PAIR system, see portal.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin C. Harper

October 29, 2006